



INSECTS AND FIREWOOD

**Rachel Arango-USDA Forest Products Lab-Madison
and Phil Pellitteri- UW Department of Entomology**

Storing of firewood indoors can lead to problems with insects in the home. Most insects that emerge cannot infest or cause damage to a home or structure, but are generally considered a nuisance indoors. This includes ants, various wood boring beetles, horntails, and parasitic wasps. Some species such as power post beetles can infest furniture, or wood in the home if the conditions are correct.

Firewood and invasive species

Wood from other states or countries can potentially bring invasive insect problems. It is important to follow local regulations on purchasing and transporting firewood to help control the spread of these invasive species. Two recent examples of problems with invasive insects are as follows:

The Asian longhorned beetle (*Anoplophora glabripennis*), which has infested many native hardwood trees in the U.S., was first introduced in cargo from Asia, and then spread by unsuspecting individuals transporting infested wood material.

More recently, the Emerald ash borer (*Agrilus plannipennis*), which causes the mortality of millions of healthy ash trees in both urban and forested environments, has been found in at least six states. Many infestations have been associated with infested firewood being transported to new areas. Further infestations can be avoided if two simple rules are followed:

- 1- Buy firewood cut from local sources
- 2- Do not transport or store extra firewood to areas over 50 miles from home

Frequently found insects in stored firewood

Although destructive pest insects do occur in firewood, they are far less common than a variety of other groups seen in this type of wood. It would be difficult to find firewood without insects, but most of these insects are harmless.

Beetles are the most common group of insects found within firewood. Wood borers often attack dead or dying trees and are in the wood when it is cut. Often, the first indication of beetle activity is the presence of a powdery dust or *frass* coming from holes on the wood surface. Adult beetles may also be seen on or around the firewood, or because some beetles are attracted to light, on nearby windows.

Most beetles seen emerging from the firewood will not infest, nor cause any damage to a home or structure, and therefore do not need to be treated with any type of chemical. Moving the firewood outdoors should remediate the problem.

The following are some of the more common beetles found in or around firewood:

Longhorned beetles (Cerambycidae)

Longhorned beetles are named as such because of their long antennae, which are often longer than the length of their body. Adults are generally 10-25 mm and have a wide range of coloration patterns. Larval galleries can often be seen underneath the bark and tend to wind irregularly through the wood producing a lot of frass. Exit holes are round to slightly oval with a diameter of 3-10 mm.



Flathead and metallic wood borers (Buprestidae)

Flathead borers are exceedingly common in wood with the bark remaining, and are therefore frequently seen in firewood material. They are also more abundant in wood salvaged from an area after a forest fire, windstorm, or bark beetle infestation. Adults range from 2-40 mm and generally have brilliant, metallic colors with various iridescences. Larvae make winding oval, flat tunnels through the wood, which are tightly packed with sawdust-like borings and pellets. Larval exit holes are oval or D-shaped.



Bark and ambrosia beetles (Curculionidae)

As their name implies, bark beetles are frequently found on the inner surface of bark on unseasoned wood. They are commonly brought indoors with firewood, but cannot infest other wood that is dry or without bark. Adults are brown, reddish brown, or black and small, 0.6-9 mm long. Larval galleries tend to be circular, random and approximately 2.5 mm in diameter. Elm, ash, and pine are often the source



Powderpost beetles (Bostrichidae)

The only insect brought in on firewood that can potentially infest furniture or structural wood are the powder post beetles. Powderpost beetles attack and breed in well seasoned oak, ash, hickory and other hardwoods and can infest unpainted or unfinished items including: rustic beams, barn board, flooring and furniture. They leave numerous small round holes generally with very fine- talcum power-like sawdust piles underneath each of the exit holes. This is the one group of insects that can continue to breed in wood if the moisture and starch content are high enough. For more information on powderpost beetles see <http://www.uwex.edu/ces/wihort/GardenFacts/XHT1053.pdf>



Other insects from firewood:



Ants in firewood

Some species of ants- including carpenter ants can be found in wood. There is little chance they will nest in the home but if wood is brought indoors and warmed up the ant can become active and create a nuisance anytime of the year.



There are also species of wood wasps, horntails, and other wasp-like insects that breed in dead wood. As with most of the insects they cannot re-infest wood or cause damage to a structure.

Proper storage of firewood and insect control

Firewood should always be kept outdoors and brought indoors no more than a few days before it will be used. If possible, the wood should be stored under a roof or open shed to provide rain coverage while still allowing for air circulation. If this is not feasible, woodpiles should be constructed in a fashion that shields as much of the wood from rain as possible. Tarping wood with a dark plastic tarp in summer will cause heating that can dry wood out and kill many developing insects.

Do not spray firewood with insecticides -it is not effective and when the wood is burned could release toxic vapors. Most insects will emerge within two years of cutting down the tree. Aged- well seasoned wood has less insect problems but is more likely to contain powderpost beetles.

Diagnostic Lab Note-Nov. - 20007